UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8, MONTANA OFFICE
FEDERAL BUILDING, 10 W. 15th STREET, SUITE 3200
HELENA, MONTANA 59626

STATMENT OF BASIS

PERMITEE:	Town of Hot Springs
FACILITY:	Town of Hot Springs Wastewater Treatment Facility
PERMIT NUMBER:	MT0020591
RESPONSIBLE OFFICAL:	Randal Woods, Mayor P.O. Box 221 Hot Springs, MT 59845
RECEIVING WATER:	Ditch Discharging to Hot Springs Creek
LOCATION:	One mile east of Town of Hot Springs town limits NE ¼ of Section 3, Township 21N, Range 24W Latitude 47° 36' 48" Longitude 114° 38" 55"

A. Permit Status

This statement of basis is for the renewal of the National Pollutant Discharge Elimination System (NPDES) permit for the discharge from the Town of Hot Springs' waste water treatment facility (WWTF). The WWTF and its discharge are located within the boundaries of the Flathead Reservation which is home to the Confederated Salish and Kootenai Tribes. The CSKT has been approved by EPA for "Treatment as a State." Tribal water quality standards (WQS) have been adopted and approved by EPA.

B. Facility Description

The Hot Springs wastewater treatment facility was constructed in 1987. It consists of three lined and aerated cells with chlorine disinfection. The system serves 564 residents of Hot Springs. The permit application reports a design flow of 0.24 million gallons per day (mgd) and an average daily flow of 0.03 mgd. Flow is measured in a v-shaped weir after the discharge passes through the chlorine contact chamber. The discharge to Hot Springs Creek is continuous.

C. Past Discharge Data

The table below shows a summary of the discharge data from 2006-2011.

Parameter	Range	Average	Permit Limit(s)	Number of Data Points	Number of Excursions
Biological Oxygen Demand (BOD_5), mg/L	2 - 36	14	30/45 a/	54	4
Total Suspended Solids (TSS), mg/L	1 - 55	9.96	30/45 a/	51	3
Fecal Coliform, # organisms/100 mL	1 – 26,500	1143	200/400 b/	48	25
E. coli, # organisms/100 mL	1 - 8160	637	126/252 b/	24	8
pH, standard units	6.44-9.08	8.2	6.0-9.0 c/	48	1
Total Residual Chlorine, mg/L	0.08 – 0.5	0.21	0.100 Daily Max	30	24

a/ 30-Day Average/45-Day Average
b/ Limitations are 30-day and 7-day geometric means.
c/ Limitation is a range not to be less than 6.0 nor greater than 9.0.

The WWTF had numerous violations for fecal coliforms and total residual chlorine (TRC). The facility's chlorinator frequently freezes in the winter and is not operable. Most fecal coliform and *E. coli* exceedances occur in the winter. The facility has also has difficulty measuring TRC to the level of accuracy needed to insure compliance with the effluent limitation. The drinking water supply for the Town of Hot Springs is high in manganese, and this is believed to be causing interference with the TRC analysis.

D. Technology-Based Effluent Limitations

Treated effluent from the WWTF is subject to the Secondary Treatment Regulations found at 40 CFR Part 133. Regulations at 40 CFR 133.102 require that the minimum level of effluent quality for secondary treatment is 30-day average concentrations of BOD_5 and TSS that do not exceed 30 mg/L and 7-day average concentrations of these parameters that do not exceed 45 mg/L. The secondary treatment regulations also provide a limit for pH to be maintained between 6.0 and 9.0.

The percent removal requirements for BOD_5 and TSS required by 40 CFR 133.102(a)(3) and (b)(3) or 40 CFR 133.105(a)(3) and (b)(3) are not included in this permit. It has been the experience of EPA Region 8 that there are practical problems that prevent the determination of the actual percent removals of BOD in small municipal wastewater lagoon systems such as this one. The detention times in lagoon systems usually range from several weeks to several months. The lag time between when the influent enters the lagoon and when the wastewater leaves the lagoon system makes it difficult to make a valid comparison between influent and effluent concentrations. Based on best professional judgment, percent removal requirements will not be required in this permit.

E. Water Quality Effluent Limitations

1. Water Quality Classification

Hot Springs Creek is classified C-3. Waters classified C-3 must be maintained suitable for bathing, swimming and recreation; wildlife (birds, mammals, amphibians and reptiles); the marginal growth and propagation of non-salmonid fishes and associated aquatic life; and agricultural and industrial water supply purposes.

2. Receiving Water Flow

There is no flow data available for Hot Springs Creek. In August, 2005 an inspection of the Symes Hot Springs and Mineral Baths upstream of the WWTF showed that the discharge from the mineral baths was the only flow in Hot Springs Creek at that time. That flow was estimated at 20 gallons per minute or 0.04 cfs.

3. Ammonia

The previous Statement of Basis determined that a limitation for ammonia was not needed based upon an ammonia study in Hot Springs Creek and Tribal Water Quality Standards. There will continue to be no effluent limitations or requirement to monitor ammonia in the renewed permit.

4. Fecal coliforms/*E. coli*

For waters classified as C-3, the geometric mean number of *E. coli* may not exceed 126 colony forming units (cfu) per 100 ml, and ten percent of the total samples may not exceed 252 cfu/100 ml during any 30-day period. The geometric mean of organisms in the fecal coliform group must not exceed 200 per 100 ml, and 10 percent of the total samples during any 30-day period are not to exceed 400 coliforms per 200 ml.

The designated uses of Warm Springs Creek include bathing, swimming, and recreation. During low flow conditions, there is little or no dilution flow in the Creek. Limitations for fecal coliform and *E. coli* will apply at the point of discharge and will be set as 30-day and 7-day averages.

5. Total Residual Chlorine

Chlorine is added to the discharge from the wastewater treatment facility for disinfection. Residual chlorine in the discharge is of potential concern to aquatic life. The tribal water quality acute standard for total residual chlorine is 19 µg/L. The chronic standard is 11 µg/l. Due to the lack of dilution in available in Warm Springs Creek, the water quality standards will apply at the point of discharge.

E. Effluent Limitations

The effluent limitations and the basis for the limitations are given in the table below:

Effluent Characteristic	30-Day Average	7-Day Average	Basis
BOD_5, mg/L	30	45	TBEL
Total Suspended Solids, mg/L	30	45	TBEL
Fecal Coliforms, org./100 mL	200	400	WQS
E. coli, org./100 mL	126	252	WQS
Total Residual Chlorine, mg/L	0.011 a/	0.019 a/	WQS
The pH of the discharge shall not be less than 6.0 or greater than 9.0 at any time.			TBEL
There shall be no discharge of floating solids or visible foam in other than trace amounts, nor shall there be a discharge which causes a visible sheen in the receiving waters. The concentration of oil and grease in any single sample shall not exceed 10 mg/L.			Previous Permit

a/ The limit for total residual chlorine are less than the detection limit of two commonly used analytical methods for residual chlorine, EPA Method 330.1 has a detection limit of 50 µg/L but is a laboratory method. EPA Method 330.5 has a detection limit of 100 µg/L and is available for field use. Any reading less than 100 µg/L will be considered in compliance with the permit limitation.

F. Self-Monitoring Requirements

All samples, except for Total Residual Chlorine, will be collected in the weir below the chlorine contact chamber for the effluent characteristics and at the frequency identified in the table below. Total Residual Chlorine will be sampled in the ditch leading to Hot Springs Creek, just prior to the ditch emptying into the Creek.

Effluent Characteristic	Frequency	Sample Type a/
Flow, MGD	Monthly	Instantaneous
Effluent BOD_5, mg/L	Monthly	Grab
Effluent TSS, mg/L	Monthly	Grab
Fecal Coliforms, # org/100 ml b/	Monthly	Grab
Total Residual Chlorine, mg/L	Monthly	Instantaneous
pH, standard units	Monthly	Instantaneous
Oil and Grease, Visual	Monthly	Observation
Oil and Grease, mg/L c/	Monthly	Grab

a/ See Definitions, Part 1.1 of the permit for definition of terms.

b/ Monitoring for fecal coliforms and *E. coli* applies year-round.

c/ In the event that an oil sheen or floating oil is observed in the discharge, a grab sample shall immediately be taken, analyzed, and reported.

G. Biosolids

The use and/or disposal of sewage sludge shall be done under the authorization of an NPDES permit issued for the use and/or disposal of sewage sludge by the EPA Region 8 biosolids program.

H. Whole Effluent Toxicity Monitoring

40 CFR 122.21(j)(5) specifies which publicly-owned treatment works must conduct whole effluent toxicity (WET) testing. WET testing is required for facilities with (1) a design flow greater than 1 mgd; (2) an approved pretreatment program. The Director may require other facilities to conduct WET testing based on the following considerations: (1) variability of pollutants; (2) ratio of effluent flow to receiving stream flow; (3) existing controls on point and non point sources; (4) receiving stream

characteristics. EPA's analysis indicates that the facility is not required to conduct testing at this time.

I. Endangered Species Act (ESA) Requirements

Section 7(a) of the Endangered Species Act requires federal agencies to insure that any actions authorized, funded, or carried out by an Agency are not likely to jeopardize the continued existence of any federally-listed endangered or threatened species or adversely modify or destroy critical habitat of such species.

According to the U.S. Fish and Wildlife Service, Montana Field Office, internet site at http://www.fws.gov/mountain-prairie/mt.html, Table 6 lists the federally listed threatened, endangered and candidate species and proposed and designated critical habitat found on the Flathead Reservation in Montana.

Table 4: Threatened, Endangered, and Candidate Species on the Flathead Reservation

Common Name	Scientific Name	Status	Habitat
Gray Wolf	*Canis lupus*	Endangered	Resident, transient; Forests in western Montana
Bull Trout	*Salvelinus confluentus*	Threatened; Proposed Critical Habitat	Clark Fork, Flathead, Kootenai, St Mary, and Belly River basins; cold water rivers and lakes.
Grizzly Bear	*Ursus arctos horribilia*	Threatened;	Resident, transient; Alpine/subalpine coniferous forest
Canada Lynx	*Lynx canadensis*	Threatened;	Resident; western Montana-montane spruce/fir forests
Spaldings's Campion (or "catchfly")	*Silence spaldingii*	Threatened	Upper Flathead River Fisher river drainages; Tobacco Valley – open grasslands with rough fescue or bluebunch wheatgrass
Water Howellia	*Howellia aquatilis*	Threatened	Wetlands; Swan Valley, Lake and Missoula Counties
Wolverine	*Gulo gulo luscus*	Threatened	High elevation alpine and boreal forests that are cold and receive enough winter precipitation to reliably maintain deep persistent snow late into the warm season

EPA finds this permit is Not Likely to Adversely Affect any of the species listed by the US Fish and Wildlife Service under the Endangered Species Act. The finding is based upon the following: (1) the renewed permit is for an existing facility; (2) the renewal of this permit does not allow for any increase in effluent limitations over the previous permit; (3) The facility does not provide any habitat for any of the endangered, threatened, or candidate species listed in Table 4.

J. National Historic Preservation Act (NHPS) Requirements

Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470(f) requires that federal agencies consider the effects of federal undertakings on historic properties. EPA has evaluated its planned reissuance of the NPDES permit for the Facility to assess this action's potential effects on any listed /eligible historic properties or cultural resources. EPA does not anticipate any impacts on listed/eligible historic properties or cultural resources because this permit is a renewal and will not be associated with any new ground disturbance or changes to the volume or point of discharge.

I. Total Maximum Daily Load

On June 21, 2000 and September 21, 2000, U.S. District Judge Donald W. Molloy issued orders stating that until all necessary total maximum daily loads (TMDLs) under Section 303(d) of the Clean Water Act are established for a particular water quality limited segment, the EPA is prohibited from issuing new permits or from increasing already permitted discharges under the NPDES program. (The orders were issued pursuant to the lawsuit Friends of the Wild Swan, et al., v. U.S. EPA, CV 97-35-DWM, District of Montana, Missoula Division.)

Although the Confederated Salish and Kootenai Tribes have adopted water quality standards that have been approved by EPA, they have not listed water bodies as impaired and developed a 303(d) list to require TMDLs. Hot Springs Creek was listed as impaired on the State of Montana's 1996 303(d) list. When EPA approved the State of Montana's 1996 list of impaired streams and lakes which included water bodies within tribal reservation boundaries, EPA specifically stated that the approval did not extend to waters in Indian Country. EPA finds that the issuance of this permit would not conflict with the Order because the permit limits are the same or lower than those in the previous permit, and the permit contains a condition that would allow the permit to be reopened to include any Waste Load Allocation applicable to the Hot Springs discharge developed and approved by the Tribes and/or EPA.

J. Miscellaneous

The effective date of the permit and the permit expiration date will be determined at the time of issuance. The permit will be issued for a period of approximately five years but not to exceed five years.

Prepared by Rosemary Rowe
June 13, 2011

Addendum to Statement of Basis

EPA received no comments during the comment period.

Prepared by Rosemary Rowe
September 13, 2011